

ABSTRACT

A method of forming film on a substrate, in which in a preliminary step information on film thickness deposited on a test substrate prepared for use in collecting information over a fixed irradiation time is obtained in advance while shining a laser beam on a target, there being a fixed positional relationship between spatial positions of the test substrate and an incidence point of the laser beam on the target, or while shining the laser beam on the target while rotating the test substrate. In a main step, a deposition time at each relative positional relationship is adjusted based on film-thickness distribution information obtained in the preliminary step while spatially moving or rotating the substrate or substrate holder about a specific central axis of rotation relative to the incidence point of the laser beam to the target, or while performing both the relative rotation and relative movement.